

PATENT COOPERATION TREATY  
**PCT**

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference OPP-W031014	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR2003/002123</b>	International filing date (day/month/year) 14 OCTOBER 2003 (14.10.2003)	(Earliest) Priority Date (day/month/year) 14 OCTOBER 2002 (14.10.2002)
Applicant WANG, Young Sung		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II)

3. ☐ Unity of invention is lacking (See Box No. III)

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.

## CLASSIFICATION OF SUBJECT MATTER

IPC7 A01G 27/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 A01G 9/00, A01G 9/02, A01G 27/00, A01G 27/04, A01G 31/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Utility models and applications for Utility models since 1975  
Japanese Utility models and applications for Utility models since 1975Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
eKIPASS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 10-164993 A(KANEKO HIROAKI ) 23 June 1998 see paragraphs 33 - 35; figures 4, 5	1 - 11
A	JP 3026081 U(MIYAMOTO DAISUKE ) 10 April 1996 see page 11, line 22 - page 12, line 11; figure 4	1 - 11
A	JP 3-34754 U(HACHIRAKUIN Ltd.) 04 April 1991 see the whole document	1 - 11
A	US 6,314,678 B1(TATSUO AKAI) 13 November 2001 see column 8, line 18 - column 9, line 18; figures 9 - 12	1 - 11
A	US 4,324,070 A(CAROLYN L. SWISHER) 13 April 1982 see the whole document	1 - 11

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family


Date of the actual completion of the international search

29 JANUARY 2004 (29.01.2004)

Date of mailing of the international search report

29 JANUARY 2004 (29.01.2004)

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2003/002123

(continuation).

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 1980-1968 Y1(GWON OH SEOK) 12 December 1980 see claim 1; figure 2	1 - 11

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

PCT/KR2003/002123

Patent document  
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Publication  
date

Patent family  
member(s)

Publication  
date

JP 10-164993 A	23.06.1998	NONE	
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JP 3-34754 U	04.04.1991	NONE	
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